

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE DIVISIONAL APPLICATION

OF: LANDES ET AL.

GROUP ART UNIT: 1616

SERIAL No. TO BE ASSIGNED

EXAMINER:

FILED: HEREWITH

S. MARKK CLARDY

FOR: SYNERGISTICALLY ACTIVE HERBICIDAL MIXTURES

Honorable Commissioner of  
Patents and Trademarks  
Washington, D.C. 20231

PRELIMINARY AMENDMENT

Sir:

This is a Divisional application of Application Serial No. 09/520,224, Filed March 07, 2000, (allowed). The Divisional application is drawn to non-elected subject matter that was canceled from the claims during the prosecution of the parent application and its parent case. Kindly amend the Divisional Application for further prosecution as follows:

IN THE CLAIMS:

Amend the claims to read as set forth in Appendix I attached to this paper. A marked up version indicating the changes made in the claims is found in the attached Appendix II.

IN THE SPECIFICATION:

Amend the specification as set forth in Appendix III attached to this paper.

R E M A R K S

Claims 2 to 17 are now pending in this case. Claim 1 has been re-written as new Claim 14. Claims 15 to 17 have been added to further bring out some of the subsidiary features of applicants' invention.

Claims 2 to 18 as set forth in Appendix I of this paper are now pending in this case. Claim 1 has been canceled in favor of new Claim 14, Claims 2 to 13 have been revised for clarity, and new Claims 15 to 18 have been added.

The claims have been amended to avoid overlap with the claims in the parent application which was allowed on September 06, 2001, and its parent case which matured into US-A 6,054,410. Also, the claim language has been revised to better conform with U.S. formal requirements and to eliminate multiple dependency. The specification has been amended to include a reference to the parent applications pursuant to 35 U.S.C: §120. No new matter has been added. Favorable action by the Examiner is respectfully solicited.

Please charge any shortage in fees due in connection with the filing of this paper, including Extension of Time fees to Deposit Account No. 11.0345. Please credit any excess fees to such deposit account.

Respectfully submitted,

KEIL & WEINKAUF



Herbert B. Keil

Reg. No. 18,967

1101 Connecticut Ave, N.W.  
Washington, D.C. 20036  
(202) 659-0100

Encl.: THE AMENDED CLAIMS (Appendix I)  
THE CHANGES IN THE CLAIMS (Appendix II)  
SUPPLEMENTAL SECTION OF THE SPECIFICATION (Appendix III)

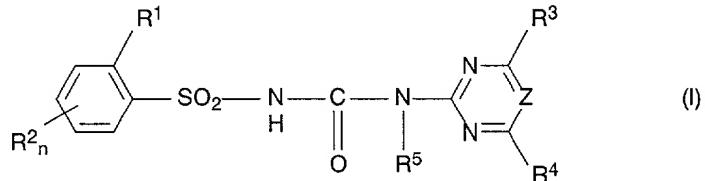
HBK/BAS

Paper No. 01

A P P E N D I X I:

THE AMENDED CLAIMS:

14. (new) A herbicidal composition comprising  
a) at least one sulfonylurea of the formula I



wherein

R<sup>1</sup> is C<sub>1</sub>-C<sub>6</sub>-alkyl which carries one to five of the following groups: methoxy, ethoxy, SO<sub>2</sub>CH<sub>3</sub>, cyano, chlorine, fluorine, SCH<sub>3</sub>, S(O)CH<sub>3</sub>;  
halogen; a group ER<sup>6</sup> where E is O, S or NR<sup>7</sup>; COOR<sup>8</sup>; NO<sub>2</sub>;  
S(O)<sub>2</sub>R<sup>9</sup>; SO<sub>2</sub>NR<sup>10</sup>R<sup>11</sup>; CONR<sup>10</sup>R<sup>11</sup>;

R<sup>2</sup> is hydrogen, C<sub>1</sub>-C<sub>4</sub>-alkyl, C<sub>2</sub>-C<sub>4</sub>-alkenyl, C<sub>2</sub>-C<sub>4</sub>-alkynyl, halogen, C<sub>1</sub>-C<sub>4</sub>-alkoxy, C<sub>1</sub>-C<sub>4</sub>-haloalkoxy, C<sub>1</sub>-C<sub>4</sub>-haloalkyl, C<sub>1</sub>-C<sub>2</sub>-alkylsulfonyl, nitro, cyano or C<sub>1</sub>-C<sub>4</sub>-alkylthio;

R<sup>3</sup> is F, CF<sub>3</sub>, CF<sub>2</sub>Cl, CF<sub>2</sub>H, OCF<sub>3</sub>, OCF<sub>2</sub>Cl, or,  
if R<sup>1</sup> is CO<sub>2</sub>CH<sub>3</sub> and R<sup>2</sup> is simultaneously fluorine, R<sup>3</sup> is Cl, or,  
if R<sup>1</sup> is CH<sub>2</sub>CF<sub>3</sub> or CF<sub>2</sub>CF<sub>3</sub>, R<sup>3</sup> is methyl, or,  
if R<sup>4</sup> is OCF<sub>3</sub> or OCF<sub>2</sub>Cl, R<sup>3</sup> is OCF<sub>2</sub>H or OCF<sub>2</sub>Br;

R<sup>4</sup> is C<sub>1</sub>-C<sub>2</sub>-alkoxy, C<sub>1</sub>-C<sub>2</sub>-alkyl, C<sub>1</sub>-C<sub>2</sub>-alkylthio, C<sub>1</sub>-C<sub>2</sub>-alkylamino, di-C<sub>1</sub>-C<sub>2</sub>-alkylamino, halogen, C<sub>1</sub>-C<sub>2</sub>-haloalkyl, C<sub>1</sub>-C<sub>2</sub>-haloalkoxy;

R<sup>5</sup> is hydrogen, C<sub>1</sub>-C<sub>2</sub>-alkoxy, C<sub>1</sub>-C<sub>4</sub>-alkyl;

R<sup>6</sup> is C<sub>1</sub>-C<sub>4</sub>-alkyl, C<sub>2</sub>-C<sub>4</sub>-alkenyl, C<sub>2</sub>-C<sub>4</sub>-alkynyl or C<sub>3</sub>-C<sub>6</sub>-cycloalkyl, where these groups may carry 1 to 5 halogen atoms, with the exception of allyl, difluoromethoxy, chlorodifluoromethoxy and 2-chloroethoxy when E is O or S; or  
in the event that E is O or NR<sup>7</sup>, R<sup>6</sup> is furthermore methylsulfonyl, ethylsulfonyl, trifluoromethylsulfonyl, alylsulfonyl, propargylsulfonyl or dimethylsulfamoyl;

R<sup>7</sup> is hydrogen, methyl or ethyl;

R<sup>8</sup> is C<sub>1</sub>-C<sub>6</sub>-alkyl, which may carry up to three of the following radicals: halogen, C<sub>1</sub>-C<sub>4</sub>-alkoxy, C<sub>1</sub>-C<sub>4</sub>-alkylthio, C<sub>1</sub>-C<sub>4</sub>-haloalkoxy, C<sub>1</sub>-C<sub>4</sub>-alkoxy-C<sub>1</sub>-C<sub>4</sub>-alkoxy, C<sub>3</sub>-C<sub>7</sub>-cycloalkyl and/or phenyl;

C<sub>5</sub>-C<sub>7</sub>-cycloalkyl which may carry up to three C<sub>1</sub>-C<sub>4</sub>-alkyl groups;

C<sub>3</sub>-C<sub>6</sub>-alkenyl or C<sub>3</sub>-C<sub>6</sub>-alkynyl;

R<sup>9</sup> is C<sub>1</sub>-C<sub>6</sub>-alkyl, which may carry up to three of the following radicals: halogen, C<sub>1</sub>-C<sub>4</sub>-alkoxy, C<sub>1</sub>-C<sub>4</sub>-alkylthio, C<sub>1</sub>-C<sub>4</sub>-haloalkoxy, C<sub>1</sub>-C<sub>4</sub>-alkoxy-C<sub>1</sub>-C<sub>4</sub>-alkoxy, C<sub>3</sub>-C<sub>7</sub>-cycloalkyl and/or phenyl;

C<sub>5</sub>-C<sub>7</sub>-cycloalkyl which may carry up to three C<sub>1</sub>-C<sub>4</sub>-alkyl groups;

C<sub>3</sub>-C<sub>6</sub>-alkenyl or C<sub>3</sub>-C<sub>6</sub>-alkynyl;

R<sup>10</sup> is hydrogen, C<sub>1</sub>-C<sub>2</sub>-alkoxy, C<sub>1</sub>-C<sub>6</sub>-alkyl, or together with R<sup>11</sup> is a C<sub>4</sub>-C<sub>6</sub>-alkylene chain in which one methylene group may be replaced by an oxygen atom or a C<sub>1</sub>-C<sub>4</sub>-alkylimino group;

R<sup>11</sup> is C<sub>1</sub>-C<sub>4</sub>-alkyl which may carry one to four halogen or C<sub>1</sub>-C<sub>4</sub>-alkoxy radicals; C<sub>3</sub>-C<sub>6</sub>-cycloalkyl;

n is 0 - 3;

o is 1 or 2;

z is N or CH,

or an environmentally compatible salt of I, and

b) at least one herbicidal compound selected from groups b<sub>1</sub>, b<sub>3</sub> to b<sub>5</sub>, b<sub>10</sub> to b<sub>20</sub>, b<sub>22</sub> to b<sub>25</sub>, b<sub>28</sub>, b<sub>29</sub>, b<sub>31</sub> to b<sub>35</sub> and b<sub>38</sub> to b<sub>41</sub>:

b<sub>1</sub>) 1,3,4-thiadiazoles: buthidazole and cyprazole;

b<sub>3</sub>) aminophosphoric acids: bilanafos, bialaphos, buminafos, glufosinate-ammonium, glyphosate and sulfosate;

b<sub>4</sub>) aminotriazoles: amitrol;

b<sub>5</sub>) anilides: anilofos and mefenacet;

b<sub>10</sub>) carbamates: asulam, barban, butylate, carbetamid, chlorbufam, chlorpropham, cycloate, desmedipham, di-allate, EPTC, esprocarb, molinate, orbencarb, pebulate, phenisopham, phenmedipham, propham, prosulfocarb, pyributicarb, sulf-allate (CDEC), terbucarb, thiobencarb (benthiocarb), tiocarbazil, tri-allate and vernolate;

b<sub>11</sub>) quinolinecarboxylic acids: quinchlorac and quinmerac;

b<sub>12</sub>) chloracetanilides: acetochlor, alachlor, butachlor, butenachlor, diethatyl-ethyl, dimethachlor, metazachlor, metolachlor, pretilachlor, propachlor, prynachlor, terbuchlor, thenylchlor and xylachlor;

b<sub>13</sub>) cyclohexenones: alloxydim, caloxydim, clethodim, cloproxydim, cycloxydim, sethoxydim, tralkoxydim and 2-{1-[2-(4-chlorophenoxy)propyloxyimino]butyl}-3-hydroxy-5-(2H-tetrahydrothiopyran-3-yl)-2-cyclohexen-1-one;

b<sub>14</sub>) dichloropropionic acids: dalapon;

b<sub>15</sub>) dihydrobenzofurans: ethofumesate;

b<sub>16</sub>) dihydrofuran-3-ones: flurtamone;

b<sub>17</sub>) dinitroanilines: benefin, butralin, dinitramin, ethalfluralin, fluchloralin, isopropalin, nitralin, oryzalin, pendimethalin, prodiamine, profluralin and trifluralin;

b<sub>18</sub>) dinitrophenols: bromofenoxyim, dinoseb, dinoseb-acetat, dinoterb and DNOC;

b<sub>19</sub>) diphenyl ethers: acifluorfen-sodium, aclonifen, chlornitrofen (CNP), difenoxuron, ethoxyfen, fluorodifen, fluoroglycofen-ethyl, fomesafen, furyloxyfen, lactofen, nitrofen, nitrofluorfen and oxyfluorfen;

b<sub>20</sub>) dipyridylenes: cyperquat, difenzoquat methylsulfate, diquat and paraquat dichloride;

b<sub>22</sub>) imidazoles: isocarbamid;

b<sub>23</sub>) imidazolinones: imazamethapyr, imazapyr, imazaquin, imazethabenzmethyl (imazame) and imazethapyr;

b<sub>24</sub>) oxadiazoles: methazole, oxadiargyl and oxadiazon;

b<sub>25</sub>) oxiranes: tridiphane;

b<sub>28</sub>) phenylacetic acids: chlorfenac (fenac);

b<sub>29</sub>) phenylpropionic acid: chlorophenprop-methyl;

b<sub>31</sub>) pyrazoles: nipyraclofen;

b<sub>32</sub>) pyridazines: chloridazon, maleic hydrazide, norflurazon and pyridate;

b<sub>33</sub>) pyridinecarboxylic acids: clopyralid, dithiopyr, picloram and thiazopyr;

b<sub>34</sub>) pyrimidyl ethers: pyrithiobac acid, pyrithiobac sodium, KIH-2023 and KIH-6127;

b<sub>35</sub>) sulfonamides: flumetsulam and metosulam;

b<sub>38</sub>) triazinones: ethiozin, metamitron and metribuzin;

b<sub>39</sub>) triazolecarboxamides: triazofenamid;

b<sub>40</sub>) uracils: bromacil, lenacil and terbacil;

b<sub>41</sub>) others: benazolin, benfuresate, bensulfide, benzofluor, butamifos, cafenstrole, chlorthal-dimethyl (DCPA), cinmethylin, dichlobenil, endothall, fluorbentranil, mefluidide, perfluidone and piperophos,  
or an environmentally compatible salt of the herbicidal compound,  
in a synergistically active amount.

2. (amended) The herbicidal composition defined in claim 14, comprising the sulfonylurea of formula I wherein

R<sup>1</sup> is CO<sub>2</sub>CH<sub>3</sub>, CO<sub>2</sub>C<sub>2</sub>H<sub>5</sub>, CO<sub>2</sub>iC<sub>3</sub>H<sub>7</sub>, CF<sub>3</sub>, CF<sub>2</sub>H, CH<sub>2</sub>CF<sub>3</sub>, CF<sub>2</sub>CF<sub>3</sub>, OSO<sub>2</sub>CH<sub>3</sub>, OSO<sub>2</sub>N(CH<sub>3</sub>)<sub>2</sub>, Cl, NO<sub>2</sub>, SO<sub>2</sub>N(CH<sub>3</sub>)<sub>2</sub>, SO<sub>2</sub>CH<sub>3</sub>, SO<sub>2</sub>C<sub>2</sub>H<sub>5</sub> and N(CH<sub>3</sub>)SO<sub>2</sub>CH<sub>3</sub>,

R<sup>2</sup> is hydrogen, halogen or methyl,

R<sup>3</sup> is CF<sub>2</sub>H, OCF<sub>3</sub>, OCF<sub>2</sub>Cl, CF<sub>3</sub>, or,  
if R<sup>1</sup> is CO<sub>2</sub>CH<sub>3</sub> and R<sup>2</sup> is simultaneously fluorine, R<sup>3</sup> is Cl,  
or,  
if R<sup>1</sup> is CH<sub>2</sub>CF<sub>3</sub> or CF<sub>2</sub>CF<sub>3</sub>, R<sup>3</sup> is methyl,

R<sup>4</sup> is OCH<sub>3</sub>, and

R<sup>5</sup> is hydrogen.

3. (amended) The herbicidal composition defined in claim 14, comprising the sulfonylurea of formula I wherein

R<sup>1</sup> is halogen, a group ER<sup>6</sup>, CO<sub>2</sub>R<sup>8</sup>, SO<sub>2</sub>CH<sub>3</sub> or SO<sub>2</sub>C<sub>2</sub>H<sub>5</sub>,

R<sup>2</sup> is hydrogen,

R<sup>3</sup> is F,

R<sup>4</sup> is OCF<sub>3</sub>, OCF<sub>2</sub>Cl or OCH<sub>3</sub>, and

R<sup>5</sup> is hydrogen.

4. (amended) The herbicidal composition defined in claim 14, comprising the sulfonylurea of formula I wherein

R<sup>1</sup> is CF<sub>3</sub>,

R<sup>2</sup> is hydrogen,

R<sup>3</sup> is CF<sub>3</sub>,

R<sup>4</sup> is OCH<sub>3</sub>,

R<sup>5</sup> is hydrogen, and

Z is N.

5. (amended) The herbicidal composition defined in claim 14, wherein the herbicidal compound (b) is selected from the group consisting of

glufosinate-ammonium, glyphosate, sulfosate, mefenacet, phenmedipham, thiobencarb, quinchlorac, quinmerac, acetochlor, alachlor, butachlor, metazachlor, metolachlor, pretilachlor, butroxydim, clethodim, cloproxydim, sethoxydim, tralkoxydim, caloxydim, 2-{1-[2-(4-chlorophenoxy)propyloxyimino]-butyl}-3-hydroxy-5-(2H-tetrahydrothiopyran-3-yl)-2-cyclohexen-1-one, pendimethalin, acifluorfen-sodium, bifenox, fluoroglycofen-ethyl, foomesafen, lactofen, imazaquin, imazethabenzmethyl, imazethapyr, pyridate, clopyralid, bispyribac-sodium, KIH-8555, KUH-920, flumetsulam, metosulam, benazolin, benfuresate, cafenstrole and cinmethylin.

6. (amended) The herbicidal composition defined in claim 14, wherein the herbicidal compound (b) is selected from the group consisting of

phenmedipham, thiobencarb, quinchlorac, caloxydim, sethoxydim, 2-{1-[2-(4-chlorophenoxy)propyloxyimino]butyl}-3-hydroxy-5-(2H-tetrahydrothiopyran-3-yl)-2-cyclohexen-1-one, acifluorfen-sodium and fluoroglycofen-ethyl.

7. (amended) The herbicidal composition defined in claim 14, comprising the sulfonylurea (a) and the one or more herbicidal compounds (b) in a weight ratio of 1:0.1 to 1:40.

8. (amended) The herbicidal composition defined in claim 14, comprising the sulfonylurea (a) and the one or more herbicidal compounds (b) in a weight ratio of 1:0.1 to 1:20.

9. (amended) A herbicidal composition comprising

- a) a herbicidally active amount on a sulfonylurea of formula I as defined in claim 14,
- b) a synergistically active amount of at least one of the herbicidal compounds (b) defined in claim 14,

at least one liquid or solid carrier and optionally at least one adjuvant.

10. (amended) The herbicidal composition defined in claim 9, wherein the sulfonylurea (a) and one or more of the herbicidally compounds (b) are present in a weight ratio of 1:0.1 to 1:40.

11. (amended) The herbicidal composition defined in claim 9, wherein the sulfonylurea (a) and one or more of the herbicidal compounds (b) are present in a weight ratio of 1:0.1 to 1:40.

12. (amended) A method of controlling undesirable vegetation, which comprises applying the sulfonylurea (a) defined in claim 14 and one or more of the herbicidal compounds (b) defined in claim 14 before, during or after the emergence of undesirable plants, either simultaneously or in succession.

13. (amended) A method of controlling undesirable vegetation, which comprises treating the leaves of crop plants and of undesired plants with the sulfonylurea (a) defined in claim 14 and one or more of the herbicidal compounds (b) defined in claim 14, either simultaneously or in succession.

15. (new) The composition defined in claim 14, wherein component b) is at least one compound selected from the group consisting of  
b<sub>3</sub>) aminophosphoric acids: bilanafos, bialaphos, buminafos, glufosinate-ammonium, glyphosate, sulfosate;  
b<sub>13</sub>) cyclohexenones: aloxydim, caloxydim, clethodim, cloproxydim, cycloxydim, sethoxydim, tralkoxydim, 2-[1-[2-(4-chlorophenoxy)propyloxyimino]butyl]-3-hydroxy-5-(2H-tetrahydrothiopyran-3-yl)-2-cyclohexen-1-one;  
b<sub>17</sub>) dinitroanilines: benefin, butralin, dinitramin, ethalfluralin, fluchloralin, isopropalin, nitralin, oryzalin, pendimethalin, prodiamine, profluralin, trifluralin;  
b<sub>23</sub>) imidazolinones: imazamethapyr, imazapyr, imazaquin, imazethabenzmethyl (imazame) and imazethapyr.

16. (new) The composition defined in claim 14, wherein component b) is at least one compound selected from the group consisting of glufosinate-ammonium, glyphosate, sulfosate, butroxydim, clethodim, cloproxydim, sethoxydim, tralkoxydim, caloxydim, 2-[1-[2-(4-chlorophenoxy)propyloxyimino]butyl]-3-hydroxy-5-(2H-tetrahydrothiopyran-3-yl)-2-cyclohexen-1-one, pendimethalin, imazaquin, imazethabenzmethyl and imazethapyr.

17. (new) The composition defined in claim 14, wherein component b) is at least one compound selected from the group consisting of

caloxydim, sethoxydim, 2-[1-[2-(4-chlorophenoxy)propyloxyimino]butyl]-3-hydroxy-5-(2H-tetrahydrothiopyran-3-yl)-2-cyclohexen-1-one, acifluorfen-sodium and fluoroglycofen-ethyl.

18. (new) The composition defined in claim 14, wherein component b) is at least one compound selected from the group consisting of aloxydim, caloxydim, clethodim, cloproxydim, cycloxydim, sethoxydim, tralkoxydim and 2-[1-[2-(4-chlorophenoxy)propyloxyimino]butyl]-3-hydroxy-5-(2H-tetrahydrothiopyran-3-yl)-2-cyclohexen-1-one.

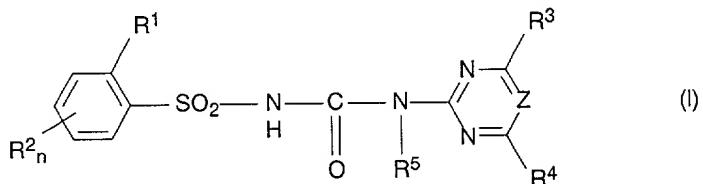
0050-51542-DIV

A P P E N D I X II:

THE CHANGES IN THE CLAIMS:

Cancel Claim 1 in favor of new Claim 14 indicated in the following:

14. (new) A herbicidal composition comprising  
a) at least one sulfonylurea of the formula I



wherein

R<sup>1</sup> is C<sub>1</sub>-C<sub>6</sub>-alkyl which carries one to five of the following groups: methoxy, ethoxy, SO<sub>2</sub>CH<sub>3</sub>, cyano, chlorine, fluorine, SCH<sub>3</sub>, S(O)CH<sub>3</sub>; halogen; a group ER<sup>6</sup> where E is O, S or NR<sup>7</sup>; COOR<sup>8</sup>; NO<sub>2</sub>; S(O)<sub>2</sub>R<sup>9</sup>; SO<sub>2</sub>NR<sup>10</sup>R<sup>11</sup>; CONR<sup>10</sup>R<sup>11</sup>;

R<sup>2</sup> is hydrogen, C<sub>1</sub>-C<sub>4</sub>-alkyl, C<sub>2</sub>-C<sub>4</sub>-alkenyl, C<sub>2</sub>-C<sub>4</sub>-alkynyl, halogen, C<sub>1</sub>-C<sub>4</sub>-alkoxy, C<sub>1</sub>-C<sub>4</sub>-haloalkoxy, C<sub>1</sub>-C<sub>4</sub>-haloalkyl, C<sub>1</sub>-C<sub>2</sub>-alkylsulfonyl, nitro, cyano or C<sub>1</sub>-C<sub>4</sub>-alkylthio;

R<sup>3</sup> is F, CF<sub>3</sub>, CF<sub>2</sub>Cl, CF<sub>2</sub>H, OCF<sub>3</sub>, OCF<sub>2</sub>Cl, or, if R<sup>1</sup> is CO<sub>2</sub>CH<sub>3</sub> and R<sup>2</sup> is simultaneously fluorine, R<sup>3</sup> is Cl, or, if R<sup>1</sup> is CH<sub>2</sub>CF<sub>3</sub> or CF<sub>2</sub>CF<sub>3</sub>, R<sup>3</sup> is methyl, or, if R<sup>4</sup> is OCF<sub>3</sub> or OCF<sub>2</sub>Cl, R<sup>3</sup> is OCF<sub>2</sub>H or OCF<sub>2</sub>Br;

R<sup>4</sup> is C<sub>1</sub>-C<sub>2</sub>-alkoxy, C<sub>1</sub>-C<sub>2</sub>-alkyl, C<sub>1</sub>-C<sub>2</sub>-alkylthio, C<sub>1</sub>-C<sub>2</sub>-alkylamino, di-C<sub>1</sub>-C<sub>2</sub>-alkylamino, halogen, C<sub>1</sub>-C<sub>2</sub>-haloalkyl, C<sub>1</sub>-C<sub>2</sub>-haloalkoxy;

R<sup>5</sup> is hydrogen, C<sub>1</sub>-C<sub>2</sub>-alkoxy, C<sub>1</sub>-C<sub>4</sub>-alkyl;

R<sup>6</sup> is C<sub>1</sub>-C<sub>4</sub>-alkyl, C<sub>2</sub>-C<sub>4</sub>-alkenyl, C<sub>2</sub>-C<sub>4</sub>-alkynyl or C<sub>3</sub>-C<sub>6</sub>-cycloalkyl, where these groups may carry 1 to 5 halogen atoms, with the exception of allyl, difluoromethoxy, chlorodifluoromethoxy and 2-chloroethoxy when E is O or S; or in the event that E is O or NR<sup>7</sup>, R<sup>6</sup> is furthermore methylsulfonyl, ethylsulfonyl, trifluoromethylsulfonyl, allylsulfonyl, propargylsulfonyl or dimethylsulfamoyl;

R<sup>7</sup> is hydrogen, methyl or ethyl;

R<sup>8</sup> is C<sub>1</sub>-C<sub>6</sub>-alkyl, which may carry up to three of the following radicals: halogen, C<sub>1</sub>-C<sub>4</sub>-alkoxy, C<sub>1</sub>-C<sub>4</sub>-alkylthio, C<sub>1</sub>-C<sub>4</sub>-haloalkoxy, C<sub>1</sub>-C<sub>4</sub>-alkoxy-C<sub>1</sub>-C<sub>4</sub>-alkoxy, C<sub>3</sub>-C<sub>7</sub>-cycloalkyl and/or phenyl;  
C<sub>5</sub>-C<sub>7</sub>-cycloalkyl which may carry up to three C<sub>1</sub>-C<sub>4</sub>-alkyl groups;  
C<sub>3</sub>-C<sub>6</sub>-alkenyl or C<sub>3</sub>-C<sub>6</sub>-alkynyl;

R<sup>9</sup> is C<sub>1</sub>-C<sub>6</sub>-alkyl, which may carry up to three of the following radicals: halogen, C<sub>1</sub>-C<sub>4</sub>-alkoxy, C<sub>1</sub>-C<sub>4</sub>-alkylthio, C<sub>1</sub>-C<sub>4</sub>-haloalkoxy, C<sub>1</sub>-C<sub>4</sub>-alkoxy-C<sub>1</sub>-C<sub>4</sub>-alkoxy, C<sub>3</sub>-C<sub>7</sub>-cycloalkyl and/or phenyl;  
C<sub>5</sub>-C<sub>7</sub>-cycloalkyl which may carry up to three C<sub>1</sub>-C<sub>4</sub>-alkyl groups;  
C<sub>3</sub>-C<sub>6</sub>-alkenyl or C<sub>3</sub>-C<sub>6</sub>-alkynyl;

R<sup>10</sup> is hydrogen, C<sub>1</sub>-C<sub>2</sub>-alkoxy, C<sub>1</sub>-C<sub>6</sub>-alkyl, or together with R<sup>11</sup> is a C<sub>4</sub>-C<sub>6</sub>-alkylene chain in which one methylene group may be replaced by an oxygen atom or a C<sub>1</sub>-C<sub>4</sub>-alkylimino group;

R<sup>11</sup> is C<sub>1</sub>-C<sub>4</sub>-alkyl which may carry one to four halogen or C<sub>1</sub>-C<sub>4</sub>-alkoxy radicals; C<sub>3</sub>-C<sub>6</sub>-cycloalkyl;

n is 0 - 3;

o is 1 or 2;

z is N or CH,  
or an enviromentally compatible salt of I, and

b) at least one herbicidal compound selected from groups b<sub>1</sub>, b<sub>3</sub> to b<sub>5</sub>, b<sub>10</sub> to b<sub>20</sub>, b<sub>22</sub> to b<sub>25</sub>, b<sub>28</sub>, b<sub>29</sub>, b<sub>31</sub> to b<sub>35</sub> and b<sub>38</sub> to b<sub>41</sub>:

b<sub>1</sub>) 1,3,4-thiadiazoles: buthidazole and cyprazole;

b<sub>3</sub>) aminophosphoric acids: bilanafos, bialaphos, buminafos, glufosinate-ammonium, glyphosate and sulfosate;

b<sub>4</sub>) aminotriazoles: amitrol;

b<sub>5</sub>) anilides: anilofos and mefenacet;

b<sub>10</sub>) carbamates: asulam, barban, butylate, carbetamid, chlorbufam, chlorpropham, cycloate, desmedipham, di-allate, EPTC, esprocarb, molinate, orbencarb, pebulate, phenisopham, phenmedipham, propham, prosulfocarb, pyributicarb, sulf-allate (CDEC), terbucarb, thiobencarb (benthiocarb), tiocarbazil, tri-allate and vernolate;

- b<sub>11</sub>) quinolinecarboxylic acids: quinchlorac and quinmerac;
- b<sub>12</sub>) chloracetanilides: acetochlor, alachlor, butachlor, butenachlor, diethyl-ethyl, dimethachlor, metazachlor, metolachlor, pretilachlor, propachlor, prynachlor, terbuchlor, thenylchlor and xylachlor;
- b<sub>13</sub>) cyclohexenones: alloxydim, caloxydim, clethodim, cloproxydim, cycloxydim, sethoxydim, tralkoxydim and 2-{1-[2-(4-chlorophenoxy)propyloxyimino]butyl}-3-hydroxy-5-(2H-tetrahydrothiopyran-3-yl)-2-cyclohexen-1-one;
- b<sub>14</sub>) dichloropropionic acids: dalapon;
- b<sub>15</sub>) dihydrobenzofurans: ethofumesate;
- b<sub>16</sub>) dihydrofuran-3-ones: flurtamone;
- b<sub>17</sub>) dinitroanilines: benefin, butralin, dinitramin, ethalfluralin, fluchloralin, isopropalin, nitrinalin, oryzalin, pendimethalin, prodiamine, profluralin and trifluralin;
- b<sub>18</sub>) dinitrophenols: bromofenoim, dinoseb, dinoseb-acetat, dinoterb and DNOC;
- b<sub>19</sub>) diphenyl ethers: acifluorfen-sodium, aclonifen, chlornitrofen (CNP), difenoxuron, ethoxyfen, fluorodifen, fluoroglycofen-ethyl, fomesafen, furyloxyfen, lactofen, nitrofen, nitrofluorfen and oxyfluorfen;
- b<sub>20</sub>) dipyridylenes: cyperquat, difenzoquat methylsulfate, diquat and paraquat dichloride;
- b<sub>22</sub>) imidazoles: isocarbamid;
- b<sub>23</sub>) imidazolinones: imazamethapyr, imazapyr, imazaquin, imazethabenzmethyl (imazame) and imazethapyr;
- b<sub>24</sub>) oxadiazoles: methazole, oxadiargyl and oxadiazon;
- b<sub>25</sub>) oxiranes: tridiphane;
- b<sub>28</sub>) phenylacetic acids: chlorfenac (fenac);
- b<sub>29</sub>) phenylpropionic acid: chlorophenprop-methyl;
- b<sub>31</sub>) pyrazoles: nipyraclofen;
- b<sub>32</sub>) pyridazines: chloridazon, maleic hydrazide, norflurazon and pyridate;
- b<sub>33</sub>) pyridinecarboxylic acids: clopyralid, dithiopyr, picloram and thiazopyr;
- b<sub>34</sub>) pyrimidyl ethers: pyrithiobac acid, pyrithiobac sodium, KIH-2023 and KIH-6127;
- b<sub>35</sub>) sulfonamides: flumetsulam and metosulam;

b<sub>38</sub>) triazinones: ethiozin, metamitron and metribuzin;  
b<sub>39</sub>) triazolecarboxamides: triazofenamid;  
b<sub>40</sub>) uracils: bromacil, lenacil and terbacil;  
b<sub>41</sub>) others: benazolin, benfuresate, bensulfide, benzofluor, butamifos, cafenstrole, chlorthal-dimethyl (DCPA), cinmethylin, dichlobenil, endothall, fluorbentranil, mefluindide, perfluidone and piperophos,  
or an environmentally compatible salt of the herbicidal compound,  
in a synergistically active amount.

Amend Claims 2 to 13 as indicated in the following:

2. (amended) [A] The herbicidal [mixture as claimed] composition defined in claim [1] 14, comprising the sulfonylurea of formula I [where] wherein

R<sup>1</sup> is CO<sub>2</sub>CH<sub>3</sub>, CO<sub>2</sub>C<sub>2</sub>H<sub>5</sub>, CO<sub>2</sub>iC<sub>3</sub>H<sub>7</sub>, CF<sub>3</sub>, CF<sub>2</sub>H, CH<sub>2</sub>CF<sub>3</sub>, CF<sub>2</sub>CF<sub>3</sub>, OSO<sub>2</sub>CH<sub>3</sub>, OSO<sub>2</sub>N(CH<sub>3</sub>)<sub>2</sub>, Cl, NO<sub>2</sub>, SO<sub>2</sub>N(CH<sub>3</sub>)<sub>2</sub>, SO<sub>2</sub>CH<sub>3</sub>, SO<sub>2</sub>C<sub>2</sub>H<sub>5</sub> and N(CH<sub>3</sub>)SO<sub>2</sub>CH<sub>3</sub>,

R<sup>2</sup> is hydrogen, halogen or methyl,

R<sup>3</sup> is CF<sub>2</sub>H, OCF<sub>3</sub>, OCF<sub>2</sub>Cl, CF<sub>3</sub>, or,  
if R<sup>1</sup> is CO<sub>2</sub>CH<sub>3</sub> and R<sup>2</sup> is simultaneously fluorine, R<sup>3</sup> is Cl,  
or,

if R<sup>1</sup> is [F<sub>3</sub>τ] CH<sub>2</sub>CF<sub>3</sub> or CF<sub>2</sub>CF<sub>3</sub>, R<sup>3</sup> is methyl,

R<sup>4</sup> is OCH<sub>3</sub>, and

R<sup>5</sup> is hydrogen. [and]

[Z is N or CH<sub>2</sub>]

3. (amended) [A] The herbicidal [mixture as claimed] composition defined in claim [1 or 2] 14, comprising the sulfonylurea of formula I [where] wherein

R<sup>1</sup> is halogen, a group ER<sup>6</sup>, [a group] CO<sub>2</sub>R<sup>8</sup>, SO<sub>2</sub>CH<sub>3</sub> or SO<sub>2</sub>C<sub>2</sub>H<sub>5</sub>,

R<sup>2</sup> is hydrogen,

R<sup>3</sup> is F,

R<sup>4</sup> is OCF<sub>3</sub>, OCF<sub>2</sub>Cl[τ] or OCH<sub>3</sub>, and

R<sup>5</sup> is hydrogen[τ].

[R<sub>6</sub> and R<sub>8</sub> have the meanings given in claim 1 and]

[Z is N or CH<sub>2</sub>]

4. (amended) [A] The herbicidal [mixture as claimed] composition defined in [any of claims 1 to 3] claim 14, comprising the sulfonylurea of formula I [where] wherein

R<sup>1</sup> is CF<sub>3</sub>,  
R<sup>2</sup> is hydrogen,  
R<sup>3</sup> is CF<sub>3</sub>,  
R<sup>4</sup> is OCH<sub>3</sub>,  
R<sup>5</sup> is hydrogen, and  
Z is N.

5. (amended) [A] The herbicidal [mixture as claimed in any of Claims 1 to 4] composition defined in claim 14, [comprising at least one] wherein the herbicidal compound (b) is selected from the group consisting of

glufosinate-ammonium, glyphosate, sulfosate, mefenacet, phenmedipham, thiobencarb, quinchlorac, quinmerac, acetochlor, alachlor, butachlor, metazachlor, metolachlor, pretilachlor, butroxydim, clethodim, cloproxydim, sethoxydim, tralkoxydim, caloxydim, 2-{1-[2-(4-chlorophenoxy)propyloxyimino]-butyl}-3-hydroxy-5-(2H-tetrahydrothiopyran-3-yl)-2-cyclohexen-1-one, pendimethalin, acifluorfen-sodium, bifenox, fluoroglycofen-ethyl, foomesafen, lactofen, imazaquin, imazethabenzmethyl, imazethapyr, pyridate, clopyralid, bispyribac-sodium, KIH-8555, KUH-920, flumetsulam, metosulam, benazolin, benfuresate, cafenstrole and cincmethylin.

6. (amended) [A] The herbicidal [mixture as claimed in any of Claims 1 to 5] composition defined in claim 14, [comprising at least one] wherein the herbicidal compound (b) is selected from the group consisting of

phenmedipham, thiobencarb, quinchlorac, caloxydim, sethoxydim, 2-{1-[2-(4-chlorophenoxy)propyloxyimino]butyl}-3-hydroxy-5-(2H-tetrahydrothiopyran-3-yl)-2-cyclohexen-1-one, acifluorfen-sodium and fluoroglycofen-ethyl.

7. (amended) [A] The herbicidal [mixture as claimed in any of claims 1 to 6] composition defined in claim 14, comprising [a] the sulfonylurea (a) [of the formula I] and the one or more herbicidal compounds (b) in a weight ratio of 1:0.1 to 1:40.

8. (amended) [A] The herbicidal [mixture as claimed in claim 7] composition defined in claim 14, comprising [a] the sulfonylurea (a) [of

~~the formula I]~~ and the one or more herbicidal compounds (b) in a weight ratio of 1:0.1 to 1:20.

9. (amended) A herbicidal composition comprising

- a) a herbicidally active amount on a sulfonylurea [~~a~~] of formula I as ~~claimed~~ defined in ~~any of claims 1 to 4~~ claim 14,
- b) a synergistically active amount of at least one of the herbicidal ~~compound~~ compounds (b) ~~as claimed~~ defined in ~~any of claims 1, 5 and 6~~ claim 14,

at least one liquid ~~and/~~ or solid carrier and~~, if desired,~~ optionally at least one adjuvant.

10. (amended) [A] The herbicidal composition ~~as claimed~~ defined in claim 9, ~~which comprises~~ wherein the sulfonylurea (a) ~~of the formula I]~~ and one or more of the herbicidaly compounds (b) are present in a weight ratio of 1:0.1 to 1:40.

11. (amended) [A] The herbicidal composition ~~as claimed~~ defined in claim 9, ~~which comprises~~ wherein the sulfonylurea (a) ~~of the formula I]~~ and one or more of the herbicidaly compounds (b) are present in a weight ratio of 1:0.1 to 1:40.

12. (amended) A method of controlling undesirable vegetation, which comprises applying [a] the sulfonylurea (a) ~~of the formula I as set forth in any of claims 1 to 4]~~ defined in claim 14 and one or more of the herbicidal ~~compound~~ compounds (b) ~~as set forth~~ defined in claim [~~1~~] 14 before, during ~~and/~~ or after the emergence of undesirable plants, either simultaneously or in succession.

13. (amended) A method of controlling undesirable vegetation, which comprises treating the leaves of [~~the~~] crop plants and of [~~the~~] undesired plants with [a] the sulfonylurea (a) ~~of the formula I as set forth in any of claims 1 to 4]~~ defined in claim 14 and one or more of the herbicidal compounds (b) ~~as set forth~~ defined in claim [~~1~~] 14, either simultaneously or in succession.

In addition to new Claim 14 set forth at the outset, enter new Claims 15 to 18 as follows:

15. (new) The composition defined in claim 14, wherein component b) is at least one compound selected from the group consisting of  
b<sub>3</sub>) aminophosphoric acids: bilanafos, bialaphos, buminafos, glu-fosinate-ammonium, glyphosate, sulfosate;

b<sub>13</sub>) cyclohexenones: alloxydim, caloxydim, clethodim, cloproxydim, cycloxydim, sethoxydim, tralkoxydim, 2-{1-[2-(4-chlorophenoxy)propyloxyimino]butyl}-3-hydroxy-5-(2H-tetrahydrothiopyran-3-yl)-2-cyclohexen-1-one;

b<sub>17</sub>) dinitroanilines: benefin, butralin, dinitramin, ethalfluralin, fluchloralin, isopropalin, nitralin, oryzalin, pendimethalin, prodiamine, profluralin, trifluralin;

b<sub>23</sub>) imidazolinones: imazamethapyr, imazapyr, imazaquin, imazethabenzmethyl (imazame) and imazethapyr.

16. (new) The composition defined in claim 14, wherein component b) is at least one compound selected from the group consisting of glufosinate-ammonium, glyphosate, sulfosate, butroxydim, clethodim, cloproxydim, sethoxydim, tralkoxydim, caloxydim, 2-{1-[2-(4-chlorophenoxy)propyloxyimino]butyl}-3-hydroxy-5-(2H-tetrahydrothiopyran-3-yl)-2-cyclohexen-1-one, pendimethalin, imazaquin, imazethabenzmethyl and imazethapyr.

17. (new) The composition defined in claim 14, wherein component b) is at least one compound selected from the group consisting of caloxydim, sethoxydim, 2-{1-[2-(4-chlorophenoxy)propyloxyimino]butyl}-3-hydroxy-5-(2H-tetrahydrothiopyran-3-yl)-2-cyclohexen-1-one, acifluorfen-sodium and fluoroglycofen-ethyl.

18. (new) The composition defined in claim 14, wherein component b) is at least one compound selected from the group consisting of alloxydim, caloxydim, clethodim, cloproxydim, cycloxydim, sethoxydim, tralkoxydim and 2-{1-[2-(4-chlorophenoxy)propyloxyimino]butyl}-3-hydroxy-5-(2H-tetrahydrothiopyran-3-yl)-2-cyclohexen-1-one.

## APPENDIX III:

**SUPPLEMENTAL SECTION OF THE SPECIFICATION:**

On page 1:

- After the title and prior to the first paragraph, ie. at indicated line 3, insert the following new paragraph:

This is a Divisional application of Application Serial No. 09/520,224, Filed March 07, 2000, (allowed), which is a Divisional application of Application Serial No. 09/043,314, filed on February 17, 1998, under 35 U.S.C. §371, now US-A 6,054,410.